

an I/O resource model in communication with said I/O resource monitor, said resource model being capable of modeling utilization of at least one of said I/O resources based at least in part on said at least one of said monitored system I/O performance characteristics; and

an I/O resource manager in communication with said I/O resource model, said I/O resource manager being capable of managing at least one of said I/O resources based at least in part on said modeled utilization.

138. The system of claim 137, wherein said storage system comprises part of a content delivery system configured to be coupled to a network.

139. The system of claim 138, wherein said content delivery system is configured to be coupled to said network at an endpoint of said network.

140. The system of claim 138, wherein said storage system includes at least two storage devices or at least two partitioned groups of storage devices for delivery of said continuous media data.

141. The system of claim 140, wherein said resource monitor is capable of monitoring a workload distribution across said at least two storage devices or at least two partitioned groups of storage devices; wherein said I/O resources comprise I/O capacity and buffer memory space of said information management system; and wherein said I/O resource model is capable of modeling said I/O capacity based at least in part on a workload distribution across said at least two storage devices or two or more partitioned groups of storage devices; and wherein said resource manager is capable of balancing said I/O capacity with said buffer memory space to

ensure uninterrupted delivery of said continuous media data to said plurality of viewers from said at least two storage devices or said at least two partitioned groups of storage devices.

142. The system of claim 141, wherein said buffer memory space comprises a part of an integrated cache/buffer memory of said storage system; wherein said I/O resource monitor is capable of monitoring a number of viewers that are reading data from said two or more storage devices or partitioned groups of storage devices out of the total number of viewers being served by said storage system; and wherein said I/O resource manager is capable of balancing said I/O capacity with said buffer memory space to ensure uninterrupted delivery of said continuous media data to said viewers reading data from said two or more storage devices or partitioned groups of storage devices.

143. The system of claim 141, wherein I/O resource manager is capable of allocating said I/O resources between background processing activities and delivery of said continuous media data.

144. The system of claim 141, wherein I/O resource manager is capable of at least one of performing I/O admission control, determining read-ahead size, or a combination thereof.

145. The system of claim 141, wherein individual storage devices of said at least two storage devices or partitioned groups of storage devices comprise storage disk drives; and wherein said I/O resource model is capable of modeling utilization of at least one of said I/O resources based at least in part on at least one of said monitored system I/O performance characteristics associated with said I/O resources, said I/O system performance characteristics comprising at least one of seek and rotation latency, estimated transfer rate, or a combination thereof.

146. The system of claim 138, wherein said I/O resources comprise I/O capacity and buffer memory space of said storage system.

147. The system of claim 146, wherein said storage system comprises at least two storage devices or two partitioned groups of storage devices; and wherein said at least one of said monitored system I/O performance characteristics comprise at least one of said system I/O performance characteristics at least partially reflective of workload distribution across said at least two storage devices or said at least two partitioned groups of storage devices.

148. The system of claim 147, wherein said at least one of said monitored system I/O performance characteristics comprise at least one of maximal aggregate consumption rate for each of said at least two storage devices or partitioned groups of storage devices, maximal aggregate number of viewers for each of said at least two storage devices or partitioned groups of storage devices, or a combination thereof.

149. The system of claim 148, wherein said resource manager is capable of managing at least one of said I/O resources for delivery of said continuous media data to said plurality of viewers based at least in part on said modeled utilization.

150. The system of claim 149, wherein said resource manager is capable of balancing said I/O capacity with said buffer memory space to ensure uninterrupted delivery of said continuous media data to said plurality of viewers from said at least two storage devices or said at least two partitioned groups of storage devices.

151. The system of claim 149, wherein said I/O resource manager is capable of at least one of performing I/O admission control, determining read-ahead size, or a combination thereof.